DESIGN-BUILD AT WSDOT

BRIEFING PAPER
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PURPOSE:

Inform the Commission about use of Design-Build and selection method for Design-Build contractors in WSDOT.

ACTION/OUTCOME:

Inform.

BACKGROUND:

WSDOT's standard method of procurement for highways is design-bid-build, in which design and specification work is completed by WSDOT or a consulting engineering firm, a bid package is prepared, and a separate construction contractor is hired to construct the project. Under design-bid-build, if design and specification work is performed by an outside consultant, that consultant is hired based upon qualifications and ability to do the work, while construction contractors for design-bid-build are hired based on low bid for the work required. Qualifications-based procurement for design firms and low-bid procurement for construction contractors have both been required by state and federal law until very recently.

Design-build procurement is a process in which WSDOT contracts for both the final design and the construction of a highway project in one contract. When using design-build, WSDOT does enough design and specification work to adequately describe the project, then seeks proposals from design-build teams for completion of the design work and the construction work. Under WSDOT's design-build process, design-build teams are hired based upon "best value", a combination of technical qualifications and lowest price bid for the work.

DISCUSSION:

Design-build is relatively new in the highway construction industry. Generally speaking, it allows for faster, but not necessarily less expensive, completion of a project than traditional methods. Various forms of design-build are authorized in most states, either as a pilot program or within certain limitations of project size or type. A few states use design-build extensively, while most others are in the process of evaluating the method. WSDOT was authorized by the legislature to test the design-build method in 1998, and completed one pilot project, SR-500/Thurston Way Interchange, in 2002. WSDOT hired an independent consultant to research and report on this project. That report is available at http://www.wsdot.wa.gov/biz/InnvContract/desbuild.htm. The Tacoma Narrows

Bridge is also a design-build project, although selection of the design-builder for that project was dictated by work done under Washington's Public-Private Partnerships Program. WSDOT is currently in the early stages of work on two more design-build projects; I-5 Everett HOV and I-405 Kirkland Stage I. Three more nickel-funded projects on I-405 will likely utilize design-build in future years.

In 1998 and 1999, WSDOT worked extensively with contracting and consulting firms in developing a design-build procurement method that would accommodate the concerns of both industries while allowing WSDOT to benefit from the advantages of design-build. WSDOT continues that partnership currently, in refining our selection and contracting methods for currently proposed design-build projects. WSDOT staff meet with representatives from the American Council of Engineering Companies (ACEC) and from the Associated General Contractors of Washington (AGC) monthly to share ideas on design-build procurement processes.

What is Best Value Procurement?

Best Value Procurement is the term that is applied to many types of procurement that take into account factors such as firm qualifications, past history, financial capability, innovative design ideas, etc., in addition to price. Cost for completion of the project is almost always one of the selection criteria, but other factors may in some cases be a major part of the selection process. In theory, best value procurement could be used for selecting design consultants, construction contractors, or design-build teams (given appropriate authorization in statute), but in fact, it is most commonly used in design-build.

How Does Best Value Procurement Work?

Typically, project proponents will make decisions about project goals in advance of the selection process, then translate those goals into criteria that help select the best supplier for the work needed. WSDOT's design-build selection procurement process is a two step process – a Request for Qualifications (RFQ) step gets us to a "short list" of firms qualified to do the work, then a Request for Proposals (RFP) solicits actual design and construction proposals for the work.

Here's how the process is working for the Everett HOV project:

The Request for Qualifications (RFQ) was advertised on September 19, 2004, soliciting a Statement of Qualifications (SOQ) from interested design-build teams. Typically, a team will consist of a joint venture created specifically for this project, between an engineering firm and a construction contractor. The RFQ outlines requirements for both the form and content to be submitted back to WSDOT, and specifies what criteria will be used in scoring to decide which teams are short-listed. For the Everett HOV Project, a score of 1,000 points is possible – 450 for Key Personnel, 450 for Submitter Experience, and 100 for Project Approach. Each of these major items it divided into several subcategories for scoring purposes.

SOQ's are due back to WSDOT on October 29, 2004. They will be scored by a team of WSDOT staff, all of whom will have been trained in the process to be used. Since SOQ's may include proprietary materials, and since the process results in narrowing

down the field of qualified proposers, all members of the scoring team will sign "no conflict of interest" and non-disclosure agreements in advance of the scoring.

Three to five teams will be short-listed, and asked to prepare proposals detailing their design for the project, including their best price for completing all design and construction work. Preparation of these proposals is costly, likely several hundred thousand dollars, and time consuming; therefore, it is desirable to limit the request to a few teams that are most qualified to do the work. Stipends will be offered to teams that are not awarded the work, but the amount of those stipends will only partially cover the cost of proposal preparation.

Design-build proposals will be scored based on pre-determined criteria, again with scoring team members having been trained, and having signed the documents mentioned above. Scoring of proposals is an intense and time consuming process – WSDOT is allowing several weeks for this project.

After a final score is determined for each team's proposal, the sealed bid price for the work is opened. The score and the bid price are then combined, using a pre-announced formula, and the winning team is selected. Bid price, design innovation, team qualifications, and ability to complete the work in a timely manner will all be part of the formula. WSDOT and the winning team then proceed to contract negotiations and award.

Why Not Just Select Based on Bid Price?

In design-build, as well as in some other types of contracting, the best use of public funds may not always use the low bid method. That is, it may be valuable in the long term to contract for innovative design and construction methods that are not possible if procurement is based strictly on price. Best Value procurement is intended to allow contracting with the team that has the right combination of price and desired technical factors.

In the case of the Everett HOV project, completion time is extremely critical. Design-build was selected as the contracting method because design-bid-build would likely not have delivered the project in time for the Vancouver Olympics. Likewise, design-build should allow earlier completion of I-405 projects, returning value to the public in terms of earlier ability to use new lanes and decreased user cost.

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